WEST Search History

Hide Items | Restore | Clear | Cancel

DATE: Thursday, December 22, 2005

Hide?	Set Name	Query	Hit Count
		DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI; PLUR=YES; OP=ADJ	
☐	L7	aeropyrum same L5	0
☐	L6	pernix same L5	0
☐	L5	(ATP or ADP or cofactor) same L3	19
☐	L4	cofactor same L3	5
☐	L3	temperature same L2	278
☐	L2	(gene or sequence or polynucleotide) same L1	4594
☐	L1	((heat same resistant same DNA same ligase?) or (DNA same ligase?) or (DNA same joinase?) or (DNA same repair same enzyme) or (polynucleotide same ligase?))	7454

END OF SEARCH HISTORY

=> index bioscience medicine

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE, AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS, CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB, DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 12:27:09 ON 22 DEC 2005

=> s ((heat(s)resistant(s)DNA(s)ligase#) or (DNA(s)ligase#) or (DNA(s)joinase#) or (DNA(s)repair(s)enzyme) or (polynucleotide(s)ligase#))

89 FILE ADISCTI
58 FILE ADISINSIGHT
5 FILE ADISNEWS
239 FILE AGRICOLA
23 FILE ANABSTR
2 FILE ANTE
3 FILE AQUALINE
63 FILE AQUASCI
280 FILE BIOENG
4734 FILE BIOSIS
2518 FILE BIOTECHABS
2518 FILE BIOTECHDS
2980 FILE BIOTECHNO
459 FILE CABA
6823 FILE CAPLUS
82 FILE CEABA-VTB
40 FILE CIN
61 FILE CONFSCI
3 FILE CROPB
6 FILE CROPU
24 FILE DDFB
168 FILE DDFU
10211 FILE DGENE
548 FILE DISSABS
24 FILE DRUGB
326 FILE DRUGU
78 FILE EMBAL
3079 FILE EMBASE
3202 FILE ESBIOBASE
723* FILE FEDRIP
27 FILE FROSTI
33 FILE FSTA
240382 FILE GENBANK
8 FILE HEALSAFE
1029 FILE IFIPAT
12 FILE IMSDRUGNEWS
13 FILE IMSRESEARCH
495 FILE JICST-EPLUS
35 FILE KOSMET
3328 FILE LIFESCI
4705 FILE MEDLINE
80 FILE NIOSHTIC
107 FILE NTIS
10 FILE OCEAN
1651 FILE PASCAL
83 FILE PHAR
7 FILE PHARMAML
41 FILE PHIN
244 FILE PROMT
43 FILE PROUSDDR
5 FILE RDISCLOSURE
3379 FILE SCISEARCH
1 FILE SYNTHLINE
4210 FILE TOXCENTER
25884 FILE USPATFULL
1806 FILE USPAT2
4 FILE VETU
5 FILE WATER
1252 FILE WPIDS

6 FILE WPIFV
1252 FILE WPINDEX
10 FILE IPA
5 FILE NAPRALERT
174 FILE NLDB

L1 QUE ((HEAT(S) RESISTANT(S) DNA(S) LIGASE#) OR (DNA(S) LIGASE#) OR (DNA(S) JOINASE#) OR (DNA(S) REPAIR(S) ENZYME) OR (POLYNUCLEOTIDE(S) LIGASE#))

=> d rank

F1	240382	GENBANK
F2	25884	USPATFULL
F3	10211	DGENE
F4	6823	CAPLUS
F5	4734	BIOSIS
F6	4705	MEDLINE
F7	4210	TOXCENTER
F8	3379	SCISEARCH
F9	3328	LIFESCI
F10	3202	ESBIOBASE
F11	3079	EMBASE
F12	2980	BIOTECHNO
F13	2518	BIOTECHABS
F14	2518	BIOTECHDS
F15	1806	USPAT2
F16	1651	PASCAL
F17	1252	WPIDS
F18	1252	WPINDEX
F19	1029	IFIPAT
F20	723*	FEDRIP
F21	548	DISSABS
F22	495	JICST-EPLUS
F23	459	CABA
F24	326	DRUGU
F25	280	BIOENG
F26	244	PROMT
F27	239	AGRICOLA
F28	174	NLDB
F29	168	DDFU
F30	107	NTIS

=> file f2, f4-f14, f17

FILE 'USPATFULL' ENTERED AT 12:31:45 ON 22 DEC 2005
CA INDEXING COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'CAPLUS' ENTERED AT 12:31:45 ON 22 DEC 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'BIOSIS' ENTERED AT 12:31:45 ON 22 DEC 2005
Copyright (c) 2005 The Thomson Corporation

FILE 'MEDLINE' ENTERED AT 12:31:45 ON 22 DEC 2005

FILE 'TOXCENTER' ENTERED AT 12:31:45 ON 22 DEC 2005
COPYRIGHT (C) 2005 ACS

FILE 'SCISEARCH' ENTERED AT 12:31:45 ON 22 DEC 2005
Copyright (c) 2005 The Thomson Corporation

FILE 'LIFESCI' ENTERED AT 12:31:45 ON 22 DEC 2005
COPYRIGHT (C) 2005 Cambridge Scientific Abstracts (CSA)

FILE 'ESBIOBASE' ENTERED AT 12:31:45 ON 22 DEC 2005

FILE 'EMBASE' ENTERED AT 12:31:45 ON 22 DEC 2005

FILE 'BIOTECHNO' ENTERED AT 12:31:45 ON 22 DEC 2005

FILE 'BIOTECHABS' ACCESS NOT AUTHORIZED

FILE 'BIOTECHDS' ENTERED AT 12:31:45 ON 22 DEC 2005

FILE 'WPIDS' ENTERED AT 12:31:45 ON 22 DEC 2005

=> s L1
L2 66094 L1

=> s (gene# or sequence# or polynucleotide#) (s) L2
7 FILES SEARCHED...
L3 32422 (GENE# OR SEQUENCE# OR POLYNUCLEOTIDE#) (S) L2

=> s (temperature# or heat or therm?)(s)L3
11 FILES SEARCHED...
L4 6055 (TEMPERATURE# OR HEAT OR THERM?)(S) L3

=> s (ATP or ADP or cofactor#)(s)L4
L5 1203 (ATP OR ADP OR COFACTOR#)(S) L4

=> s (mg or mn or ca or co)(s)L5
L6 333 (MG OR MN OR CA OR CO)(S) L5

=> s pernix(s)L6
L7 4 PERNIX(S) L6

=> s aeropyrum(s)L6
L8 4 AEROPYRUM(S) L6

=> s organism# (s)L6
L9 30 ORGANISM# (S) L6

=> dup rem l9
PROCESSING COMPLETED FOR L9
L10 30 DUP REM L9 (0 DUPLICATES REMOVED)

=> dup rem l7
PROCESSING COMPLETED FOR L7
L11 2 DUP REM L7 (2 DUPLICATES REMOVED)

=> d ibib abs L10 1-30

L10 ANSWER 1 OF 30 USPATFULL on STN
ACCESSION NUMBER: 2005:274547 USPATFULL
TITLE: Flea head, nerve cord, hindgut and malpighian tubule nucleic acid molecules, proteins and uses thereof
INVENTOR(S): Brandt, Kevin S., Windsor, CO, UNITED STATES
Gaines, Patrick J., Fort Collins, CO, UNITED STATES
Stinchcomb, Dan T., Fort Collins, CO, UNITED STATES
Wisnewski, Nancy, Fort Collins, CO, UNITED STATES
PATENT ASSIGNEE(S): Heska Corporation (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005239103	A1	20051027
APPLICATION INFO.:	US 2004-978245	A1	20041029 (10)

RELATED APPLN. INFO.: Continuation of Ser. No. US 2001-991936, filed on 21 Nov 2001, PENDING Division of Ser. No. US 2000-543668, filed on 7 Apr 2000, ABANDONED

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-128704P	19990409 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: HESKA CORPORATION, INTELLECTUAL PROPERTY DEPT., 3760 ROCKY MOUNTAIN AVE, LOVELAND, CO, 80538, US
NUMBER OF CLAIMS: 21
EXEMPLARY CLAIM: 1
LINE COUNT: 7785
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to flea head, nerve cord, hindgut and Malpighian tubule proteins; to flea head, nerve cord, hindgut and Malpighian tubule nucleic acid molecules, including those that encode such flea head, nerve cord, hindgut and Malpighian tubule proteins; to antibodies raised against such flea head, nerve cord, hindgut and Malpighian tubule proteins; and to compounds that inhibit flea head, nerve cord, hindgut and Malpighian tubule protein activity. The present invention also includes methods to obtain such proteins, nucleic acid molecules, antibodies, and inhibitory compounds. Also included in the present invention are therapeutic compositions comprising proteins, nucleic acid molecules, or protective compounds derived from proteins of the present invention as well as the use of such therapeutic compositions to protect animals from flea infestation. Also included in the present invention is the use of flea head, nerve cord, hindgut and Malpighian tubule proteins to derive inhibitory compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 2 OF 30 USPATFULL on STN
ACCESSION NUMBER: 2005:151351 USPATFULL
TITLE: Compositions isolated from bovine mammary gland and methods for their use
INVENTOR(S): Havukkala, Ilkka J., Remura, NEW ZEALAND
Glenn, Matthew, Whenuapai, NEW ZEALAND
Grigor, Murray R., Glendowie, NEW ZEALAND
Molenaar, Adrian J., Hamilton, NEW ZEALAND
PATENT ASSIGNEE(S): GENESIS RESEARCH AND DEVELOPMENT CORP. LTD., Parnell, NEW ZEALAND (non-U.S. corporation)
AGRESEARCH LTD., Hamilton, NEW ZEALAND (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005130263	A1	20050616
APPLICATION INFO.:	US 2003-617316	A1	20030709 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2000-699146, filed on 27 Oct 2000, ABANDONED

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-162702P	19991029 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Janet Sleath, SPECKMAN LAW GROUP, Suite 100, 1501 Western Avenue, Seattle, WA, 98101, US
NUMBER OF CLAIMS: 21
EXEMPLARY CLAIM: 1
LINE COUNT: 7006
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Isolated polynucleotides encoding polypeptides expressed in bovine mammary gland tissue are provided, together with genetic constructs and host cells comprising such isolated polynucleotides. Methods for the use of such polynucleotides and polypeptides are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 3 OF 30 USPATFULL on STN
ACCESSION NUMBER: 2005:250255 USPATFULL
TITLE: Methods and compositions for inhibition of membrane fusion-associated events, including HIV transmission
INVENTOR(S): Barney, Shawn O'Lin, Cary, NC, UNITED STATES
Lambert, Dennis Michael, Cary, NC, UNITED STATES

Petteway, Stephen Robert, Cary, NC, UNITED STATES
PATENT ASSIGNEE(S): Trimeris, Inc., Durham, NC, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6951717	B1	20051004
APPLICATION INFO.:	US 1995-484741		19950607 (8)

RELATED APPLN. INFO.: Division of Ser. No. US 1995-470896, filed on 6 Jun 1995, PENDING Continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994, Pat. No. US 6017536 Continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994, PENDING Continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, Pat. No. US 5464933
DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Scheiner, Laurie
ASSISTANT EXAMINER: Parkin, Jeffrey S.
LEGAL REPRESENTATIVE: Pennie & Edmonds LLP
NUMBER OF CLAIMS: 50
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 94 Drawing Figure(s); 93 Drawing Page(s)
LINE COUNT: 43743
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Parainfluenza virus types 1 to 4 (PIV1 to PIV4) are important human pathogens that cause upper and lower respiratory tract infections, particularly in infants and children. The claimed invention is directed toward novel methods for the inhibition of parainfluenza virus transmission to a cell involving the administration of synthetic peptide fusion inhibitors. These inhibitors are derived from the parainfluenza virus and vary in length between 16 to 39 amino acids. The peptides were identified by screening for the presence of fusion inhibitory motifs (e.g., ALLMOTI5, 107x178x4, and PLZIP) within the parainfluenza virus genome. A number of peptides were identified and their fusion inhibitory activities ascertained. These peptides should provide useful antiviral agents.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 4 OF 30 USPATFULL on STN
ACCESSION NUMBER: 2004:274256 USPATFULL
TITLE: Novel human hydrolase family members and uses thereof
INVENTOR(S): Meyers, Rachel E., Newton, MA, UNITED STATES
Glucksmann, Maria Alexandra, Lexington, MA, UNITED STATES
Curtis, Rory A. J., Framingham, MA, UNITED STATES
Rudolph-Owen, Laura A., Jamaica Plain, MA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004214758	A1	20041028
APPLICATION INFO.:	US 2002-193452	A1	20020711 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2001-816664, filed on 23 Mar 2001, ABANDONED

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-191973P	20000324 (60)
	US 2000-199559P	20000425 (60)
	US 2000-206036P	20000522 (60)
	US 2000-205442P	20000519 (60)
	US 2000-209949P	20000606 (60)
	US 2000-214948P	20000629 (60)
	US 2000-220008P	20000721 (60)
	US 2000-220040P	20000721 (60)
	US 2000-226774P	20000821 (60)
	US 2000-235033P	20000925 (60)
	US 2000-238170P	20001005 (60)
	US 2001-267054P	20010207 (60)

US 2000-213688P 20000623 (60)
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Intellectual Property Group, MILLENNIUM PHARMACEUTICALS, INC., 75 Sidney Street, Cambridge, MA, 02139
NUMBER OF CLAIMS: 19
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 62 Drawing Page(s)
LINE COUNT: 68657
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention provides isolated nucleic acids molecules, designated 26443, 46873, 61833, 26493, 58224, 46980, 32225, 47508, 56939, 33410, 33521, 23479, 48120, 46689, 80091, and 46508 nucleic acid molecules, which encode novel human hydrolase family members. The invention also provides antisense nucleic acid molecules, recombinant expression vectors containing 26443, 46873, 61833, 26493, 58224, 46980, 32225, 47508, 56939, 33410, 33521, 23479, 48120, 46689, 80091, or 46508 nucleic acid molecules, host cells into which the expression vectors have been introduced, and nonhuman transgenic animals in which a 26443, 46873, 61833, 26493, 58224, 46980, 32225, 47508, 56939, 33410, 33521, 23479, 48120, 46689, 80091, or 46508 gene has been introduced or disrupted. The invention still further provides isolated 26443, 46873, 61833, 26493, 58224, 46980, 32225, 47508, 56939, 33410, 33521, 23479, 48120, 46689, 80091, or 46508 proteins, fusion proteins, antigenic peptides and anti-26443, 46873, 61833, 26493, 58224, 46980, 32225, 47508, 56939, 33410, 33521, 23479, 48120, 46689, 80091, or 46508 antibodies. Diagnostic methods utilizing compositions of the invention are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 5 OF 30 USPATFULL on STN
ACCESSION NUMBER: 2004:69593 USPATFULL
TITLE: Fusion proteins comprising DP-178 and other viral fusion inhibitor peptides useful for treating aids
INVENTOR(S): Bolognesi, Dani Paul, Durham, NC, UNITED STATES
Matthews, Thomas James, Durham, NC, UNITED STATES
Wild, Carl T., Durham, NC, UNITED STATES
Barney, Shawn O?apos,Lin, Cary, NC, UNITED STATES
Lambert, Dennis Michael, Cary, NC, UNITED STATES
Petteway, Stephen Robert, Cary, NC, UNITED STATES
Langlois, Alphonse J., Durham, NC, UNITED STATES
PATENT ASSIGNEE(S): Duke University (U.S. corporation)
Trimeris, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004052820	A1	20040318
APPLICATION INFO.:	US 2002-267748	A1	20021008 (10)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1995-484223, filed on 7 Jun 1995, PENDING Division of Ser. No. US 1995-470896, filed on 6 Jun 1995, GRANTED, Pat. No. US 6479055 Continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994, GRANTED, Pat. No. US 6017536 Continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994, GRANTED, Pat. No. US 6440656 Continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, GRANTED, Pat. No. US 5464933
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: PENNIE AND EDMONDS, 1155 AVENUE OF THE AMERICAS, NEW YORK, NY, 100362711
NUMBER OF CLAIMS: 15
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 83 Drawing Page(s)
LINE COUNT: 40442
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to peptides which exhibit potent anti-retroviral activity. The peptides of the invention comprise DP178

(SEQ ID:1) peptide corresponding to amino acids 638 to 673 of the HIV-1.sub.LAI gp41 protein, and fragments, analogs and homologs of DP178. The invention further relates to the uses of such peptides as inhibitory of human and non-human retroviral, especially HIV, transmission to uninfected cells.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 6 OF 30 USPATFULL on STN
ACCESSION NUMBER: 2004:301902 USPATFULL
TITLE: Methods for inhibition of membrane fusion-associated events, including HIV transmission
INVENTOR(S): Bolognesi, Dani Paul, Durham, NC, United States
Matthews, Thomas James, Durham, NC, United States
Wild, Carl T., Durham, NC, United States
PATENT ASSIGNEE(S): Duke University, Durham, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6824783	B1	20041130
APPLICATION INFO.:	US 1995-487266		19950607 (8)

RELATED APPLN. INFO.: Division of Ser. No. US 1995-470896, filed on 6 Jun 1995, now patented, Pat. No. US 6479055
Continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994, now patented, Pat. No. US 6017536
Continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994, now patented, Pat. No. US 5440656
Continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Housel, James
ASSISTANT EXAMINER: Parkin, Jeffrey S.
LEGAL REPRESENTATIVE: Pennie & Edmonds LLP
NUMBER OF CLAIMS: 118
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 84 Drawing Figure(s); 83 Drawing Page(s)
LINE COUNT: 25013
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to peptides which exhibit potent anti-retroviral activity. The peptides of the invention comprise DP178 (SEQ ID:1) peptide corresponding to amino acids 638 to 673 of the HIV-1.sub.LAI gp41 protein, and fragments, analogs and homologs of DP178. The invention further relates to the uses of such peptides as inhibitory of human and non-human retroviral, especially HIV, transmission to uninfected cells.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 7 OF 30 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2005-00784 BIOTECHDS
TITLE: Use of type III restriction enzyme to isolate from cDNA of an expressed gene, a tag comprising more than 25 nucleotides and capable of identifying the expressed gene;
rice expressed sequence tag isolation using restriction endonuclease and DNA primer for use in expression profiling and genomics
AUTHOR: KAHL G; WINTER P; KRUEGER D; REICH S; MATSUMURA H; TERAUCHI R
PATENT ASSIGNEE: IWATE PREFECTURAL GOVERNMENT; KAHL G; WINTER P; KRUEGER D; REICH S
PATENT INFO: WO 2004099445 18 Nov 2004
APPLICATION INFO: WO 2003-JP5840 9 May 2003
PRIORITY INFO: WO 2003-5840 9 May 2003; WO 2003-5840 9 May 2003
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2004-821686 [81]
AN 2005-00784 BIOTECHDS
AB DERWENT ABSTRACT:
NOVELTY - Use of a type III restriction enzyme (I) to isolate from cDNA

of an expressed ***gene*** , a tag comprising more than 25 nucleotides and capable of identifying the expressed ***gene*** , where the 3' end of the tag is defined by a cleavage site of the type III restriction enzyme and the 5' end of the tag is defined by the cleavage site of another restriction enzyme, is new.

DETAILED DESCRIPTION - Use of a type III restriction enzyme (I) to isolate from cDNA of an expressed ***gene*** , a tag comprising more than 25 nucleotides and capable of identifying the expressed ***gene*** , where the 3' end of the tag is defined by a cleavage site of the type III restriction enzyme and the 5' end of the tag is defined by the cleavage site of another restriction enzyme that is closest to the 3' end of the cDNA of the expressed ***gene*** . INDEPENDENT CLAIMS are also included for: (1) a tag comprising more than 25 nucleotides and capable of identifying an expressed ***gene*** , where the 3' end of the tag is defined by a cleavage site of a type III restriction enzyme and the 5' end of the tag is defined by the cleavage site of another restriction enzyme that is closest to the 3' end of the cDNA of the expressed ***gene*** ; (2) a ditag-oligonucleotide (II) comprising two tags each of which is derived from a different expressed ***gene*** , where each tag comprises more than 25 nucleotides and is capable of identifying an expressed ***gene*** , where the 3' end of the tag is defined by a cleavage site of the type III restriction enzyme and the 5' end of the tag is defined by the cleavage site of another restriction enzyme that is closest to the 3' end of the cDNA of the expressed ***gene*** ; (3) a ***polynucleotide*** (III) comprising two of (II); (4) ***gene*** expression analysis (M1), comprising synthesizing a cDNA pool from mRNA of expressed ***genes*** using a primer comprising oligo-dT and a recognition ***sequence*** of a type III restriction enzyme, followed by digestion of the cDNA pool with another restriction enzyme, purifying fragments comprising poly A ***sequence*** from the above cDNA pool, and ligating the fragments to either linker-A or linker-B, both of which comprise the recognition ***sequence*** of the type III restriction enzyme, digesting the above fragments with the type III restriction enzyme, and ligating the resulting fragment comprising linker-A to the resulting fragment comprising linker-B after performing a 3'-filling reaction, and digesting the above ligated fragments with the other restriction enzyme to cleave off the linker ***sequence*** , and therefore obtaining a ditag-oligonucleotide comprising two tags of more than 25 nucleotides and capable of identifying the expressed ***gene*** , ligating the ditag-oligonucleotides to produce a ***polynucleotide*** , analyzing the nucleotide ***sequence*** of the above ***polynucleotide*** , and quantifying the expression level of a expressed ***gene*** based on the number of tags corresponding to the expressed ***gene*** included in the ***polynucleotide*** ; and (5) a kit (IV) for isolating a tag comprising more than 25 nucleotides and capable of identifying an expressed ***gene*** , comprising a reverse transcriptase (RT) primer defined by the ***sequence*** 5'-N(18-25)-CAGCAG-T(15-25)-3', where N(18-25) is arbitrary nucleotide ***sequence*** from 18-25 not comprising a ***sequence*** 5'-CAGCAG-3' and a ***sequence*** 5'-CATG-3', and where the 5' end of RT-primer may be biotinylated, Linker-A and Linker-B which are double-stranded ***DNA*** different from each other and made by annealing the first strand of ***DNA*** (1): 5'-N(30-40)-CAGCAGCATG-3', and second strand of ***DNA*** (2): 3'-N(30-40)-GTCGTC-5', where N(30-40) are arbitrary nucleotide ***sequences*** from 30-40 which are complementary to each other, and where the 5' end of ***DNA*** (1) may be labeled and the 3' end of ***DNA*** (2) may be amino-modified, and primers capable of hybridizing to the above Linker-A or Linker-B.

BIOTECHNOLOGY - Preferred Restriction Enzyme: (I) is EcoP15I. The other restriction enzyme is NlaIII. Preferred Ditag-oligonucleotide: (II) is produced by (M1). (II) is made by a random association of two tags derived from the different expressed ***genes*** . Preferred ***Polynucleotide*** : (III) comprises 2-200 ditag-oligonucleotides. Preferred Kit: (IV) further comprises EcoP15I and/or NlaIII.

USE - (I) is useful for isolating from cDNA of an expressed ***gene*** , a tag comprising more than 25 nucleotides and capable of identifying the expressed ***gene*** . A ***polynucleotide*** (III) is useful for ***gene*** expression analysis which involves analyzing the nucleotide ***sequence*** of (III), and quantifying the expression level of an expressed ***gene*** based on the number of

tags corresponding to the expressed ***gene*** included in the ***polynucleotide*** (all claimed).

ADVANTAGE - The tag isolated by (I) allows accurate quantitative ***gene*** expression analysis and rapid ***gene*** expression profiling in any ***organism*** for which no expressed ***sequence*** tag (EST) database is available.

EXAMPLE - Tag ***sequences*** ((26- and 27-base pairs (bp)) were isolated from leaves of a lesion-mimic mutant IB2020 of rice Oryza sativa. Total RNA was isolated from leaf blades of rice by RNA isolation method. From this RNA, 5 microgram of mRNA were isolated using a mRNA purification kit. The mRNA was dissolved in 29 microliter of DEPC water, and used as source material. This mRNA was reverse-transcribed using a cDNA synthesis system to generate single-stranded cDNA using the reverse transcription-primer comprising the 5'-CAGCAG-3' motif that is recognition ***sequence*** of the enzyme Ecop15I. Reverse transcription-primer: 5'-CTGATCTAGAGGTACCGGATCCCAGCAGTTTTTTTTTTTTTTTTTT-3'. The product was converted to double-stranded cDNA. Resulting double-stranded cDNA (20 microliter) was digested in 200 microliter reaction solution comprising 50 units of NlaIII in 1X NEB buffer 4 (NEB) containing 0.1 ***mg*** /ml bovine serum albumin (BSA) at 37 degrees centigrade for 90 minutes. After digestion, cDNA was extracted with TE-equilibrated Phenol/Chloroform/Isoamylalcohol (25:24:1; pH 8.0), ethanol precipitated, and dissolved in 20 microliter LoTE buffer. In each of two Eppendorf tubes, 1 ml streptavidin magnetic beads suspension was transferred. The cDNA bound by magnetic beads was washed three times with 1X BandW buffer and three times with LoTE buffer. The 5'-termini of Linker-A2 and Linker-B2 were phosphorylated by T4 ***polynucleotide*** kinase (NEB). Linker-A was prepared by annealing Linker-A1 and phosphorylated Linker-A2, and Linker-B by annealing Linker-B1 and phosphorylated Linker-B2. To each of the two tubes containing cDNA bound to magnetic beads, 17 microliter LoTE, 3 microliter 5X ***ligase*** buffer and 1 microgram either of Linker-A or Linker-B were added. After mixing, tubes were incubated at 50 degrees centigrade for 2 minutes and left at room ***temperature*** for 15 minutes. After linker ligation, the beads were washed. Linker-ligated cDNA on the magnetic beads was digested with 10 units EcoP15I in 100 microliter reaction mixture (10 mM Tris-HCl pH 8.0, 10 mM KCl, 10 mM MgCl2, 0.1 mM EDTA, 0.1 mM dithiothreitol (DTT), 5 microgram/ml BSA, 2 mM ***ATP***). Tubes were incubated at 37 degrees centigrade for 90 minutes. After EcoP15I digestion, the tubes were placed on a magnetic stand. After removal of the biotinylated outermost 3'-terminal fragment by streptavidin coated magnetic beads, the unbound fraction containing the linker-tag fragments was collected, and transferred to a new tube. The 5'-protrusion of the linker-tag fragments was filled-in by ***DNA*** polymerase and blunted. (53 pages)

L10 ANSWER 8 OF 30 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2004-11627 BIOTECHDS
TITLE: Novel DNA molecule from Thermotoga species encoding delta prime subunit of DNA polymerase III-type enzyme, useful for producing the enzyme by recombinant techniques; vector-mediated DNA-polymerase gene transfer and expression in host cell for recombinant protein production
AUTHOR: O'DONNELL M E; YUZHAKOV A; YURIEVA O; JERUZALMI D; BRUCK I; KURIYAN J
PATENT ASSIGNEE: O'DONNELL M E; YUZHAKOV A; YURIEVA O; JERUZALMI D; BRUCK I; KURIYAN J
PATENT INFO: US 2004038290 26 Feb 2004
APPLICATION INFO: US 2003-671419 25 Sep 2003
PRIORITY INFO: US 2003-671419 25 Sep 2003; US 1997-43202 8 Apr 1997
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2004-203219 [19]
AN 2004-11627 BIOTECHDS
AB DERWENT ABSTRACT:

NOVELTY - An isolated ***DNA*** molecule (I) from ***Thermotoga*** species encoding delta' subunit of ***DNA*** polymerase III-type enzyme, where (I) comprises a fully defined ***sequence*** of 936 nucleotides (S1) as given in specification, encoding fully defined ***sequence*** of 311 amino acids (S2), as given in specification, or

hybridizing to the complement of (S1), is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for: (1) an expression system (II) comprising an expression vector into which is inserted a heterologous (I); and (2) a host cell (III) comprising (II).

WIDER DISCLOSURE - The following are also disclosed as new: (1) gamma subunits of ***Thermus*** ***thermophilus*** (T.th); tau subunit of T.th, Aquifex aeolicus (A.ae), ***Thermotoga*** maritima (T.ma), Bacillus stearothermophilus (B.st); epsilon subunit of T.th, alpha subunit of T.th, A.ae, T.ma, or B.st; delta subunit of T.th, A.ae, T.ma; delta' subunit of T.th, A.ae or B.st; (2) variants including allelic variants, muteins, analogs and fragments of the above mentioned subunits; (3) ***genes*** that correspond to, and code expression for the subunits described above; (4) identifying, isolating and cloning ***DNA*** molecules which encode accessories subunits encoded by the ***genes*** of ***DNA*** polymerase III; (5) polymerase III-type enzymes prepared by purification of an extract taken from a particular ***thermophile*** ; (6) recombinant gamma, tau, epsilon, alpha, delta, delta', and beta subunits from the ***thermophiles*** ; (7) identifying polymerase III-type enzymes by long chain extension and elucidation of subunits with antibodies; (8) isolated and purified ***DNA*** polymerase III from T.th, A.ae, T.ma, B.st; (9) preparing ***DNA*** polymerase III enzymes and corresponding subunit ***genes*** ; (10) use of the enzymes and construct in the preparation, reconstitution or modification of light enzymes; (11) amplifying and sequencing ***DNA*** molecule using ***DNA*** polymerase III-type enzymes or complexes; and (12) kits for amplifying or sequencing ***DNA*** molecules, comprising the ***DNA*** polymerase subunits described above.

BIOTECHNOLOGY - Preferred ***DNA*** Molecule: (I) is derived from T. maritima. Preferably, (I) is capable of forming a portion of a clamp loader that can cooperate with a ***DNA*** polymerase to form a ***DNA*** polymerase III-like particle.

USE - (I) is useful for producing a recombinant ***thermostable*** delta' subunit of a ***DNA*** polymerase III-type enzyme from a ***Thermotoga*** species, comprising transforming a host cell with (I) under conditions suitable for expression of the delta' subunit and isolating the delta' subunit (claimed).

EXAMPLE - Cloning of ***Thermus*** ***thermophilus*** (T.th) dnaQ ***gene*** encoding the epsilon subunit of ***DNA*** polymerase III replication enzyme was carried out as follows. The dnaQ ***gene*** of Escherichia coli and the corresponding region of PolC of Bacillus subtilis, share approximately 30 % identity. Comparison of the predicted amino acid ***sequences*** for DnaQ (epsilon) of E. coli and PolC of B. subtilis revealed two highly conserved regions. Within each of these regions, a nine amino acid ***sequence*** was used to design two oligonucleotide primers for use in the polymerase chain reaction. The regions highly conservative among Pol III exonucleases were chosen to design the degenerate primers for the amplification of a T.th dnaQ internal fragment. ***DNA*** oligonucleotides for amplification of T.th. genomic ***DNA*** were as follows: 5'-GTSGTSNNSGACNNSGAGACSACSGGG-3' and 5'-GAASCCSNNGTCGAASNNGGCGTTGTG-3'. The amplification reactions contained 10 ng T.th genomic ***DNA*** , 0.5 mM of each primer, in a volume of 100 microliter of Vent polymerase reaction mixture containing 10 microliter ***ThermoPol*** buffer, 0.5 mM of each dNTP (deoxynucleotide triphosphate) and 0.5 mM MgSO4. Amplification was performed, and the products were visualized in a 1.5 % native agarose gel. A fragment of the expected size of 270 base pair (bp) was cloned into the SmaI site of pUC19 and ***sequenced*** . To obtain further ***sequence*** of the dnaQ ***gene*** , genomic ***DNA*** was digested with either mhoI, BamHI, KpnI or NcoI. These restriction enzymes were chosen because they cut T.th genomic ***DNA*** frequently. Approximately 0.1 microgram of ***DNA*** for each digest was ligated by T4 ***DNA*** ***ligase*** in 50 microliter of ligation buffer (50 mM Tris-HCl (pH 7.8), 10 mM MgCl2, 10 mM dithiothreitol, 1 mM ***ATP*** , 25 ***mg*** /ml bovine serum albumin) overnight at 20 degrees centigrade. The ligation mixtures were used for circular PCR. ***DNA*** oligonucleotides for amplification of T.th genomic ***DNA*** were the following: 5'-CGGGGATCCACCTCAATCACCTCGTGG-3' and 5'-CGGGGATCCGCCACCTTGCGGCTCCGGGTG-3'. The amplification reactions contained 1 ng T.th genomic ***DNA***

(that had been cut with NcoI and religated into circular ***DNA*** for circular PCR), 0.4 mM of each primer, in a volume of 100 microliter of Vent polymerase reaction mixture containing 10 microliter ***ThermoPol*** buffer, 0.5 mM of each dNTP, 0.5 mM MgSO4, and 10 % DMSO (dimethylsulfoxide). A 1.5 kb (kilobase) fragment was obtained and cloned into the BamHI site of the pUC19 vector. Partial sequencing of the fragment revealed that it contained the dnaQ regions adjacent to ***sequences*** corresponding to the PCR primers and therefore contained the ***sequences*** both upstream and downstream of the previously cloned dnaQ fragment. One of the NcoI sites turned out to be approximately 300 bp downstream of the end of the first cloned dnaQ ***sequence*** and therefore did not include the 3' end of the dnaQ. To obtain the 3' end, another inverse PCR reaction was performed. Since an ApaI restriction site was recognized within this newly ***sequenced*** dnaQ fragment, the circular PCR procedure was performed using as template an ApaI digest of T.th genomic ***DNA*** that was ligated (circularized) under the same conditions as described above. ***DNA*** oligonucleotides for the amplification of the ApaI/religated T.Th genomic ***DNA*** were as follows: 5'-GCGCTCTAGACGAGTTCCCAAAGCGTGCGGT-3' and 5'-CGCGTCTAGATCACCTGTATCCAGA-3'. The 1.7 kb PCR fragment was cloned into the XbaI site of the pUC19 vector and partially ***sequenced*** . The dnaQ ***gene*** was encoded by an open reading frame of 209 amino acids in length, similar to the length of the E. coli epsilon subunit (243 amino acids). The entire amino acid ***sequence*** of the epsilon subunit predicted from the T.th dnaQ ***genes*** of other ***organisms*** with only a few gaps, and insertions. (245 pages)

L10 ANSWER 9 OF 30 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2004-26235 BIOTECHDS
TITLE: Novel heat resistant acetylglutamate kinase derived from Sulfolobus tokodaii, useful for producing N-acetyl-L-glutamic acid-5-phosphate;
plasmid-mediated gene transfer and expression in Escherichia coli for recombinant thermostable enzyme production and purification
PATENT ASSIGNEE: KOKURITSU DAIGAKU HOJIN OOSAKA DAIGAKU
PATENT INFO: JP 2004298187 28 Oct 2004
APPLICATION INFO: JP 2004-81625 19 Mar 2004
PRIORITY INFO: JP 2003-78607 20 Mar 2003; JP 2003-78607 20 Mar 2003
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
OTHER SOURCE: WPI: 2004-769125 [76]
AN 2004-26235 BIOTECHDS
AB DERWENT ABSTRACT:
NOVELTY - A ***heat*** ***resistant*** protein (I) having a fully defined Sulfolobus tokodaii strain 7 derived acetylglutamate kinase ***sequence*** (S1) of 261 amino acids as given in the specification or a ***sequence*** comprising one or more amino acid deletion, substitution, addition or insertion in (S1), and having acetyl glutamic acid kinase activity, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following: (1) a vector (II) containing ***DNA*** encoding (I) or ***DNA*** having a fully defined acetyl glutamic acid kinase ***gene*** ***sequence*** (S2) of 786 base pairs as given in the specification; and (2) a transformed ***organism*** (III) transformed by (II).

BIOTECHNOLOGY - Preferred Protein: (I) acts on N-acetyl-L-glutamate acid in the presence of ***ATP*** to produce N-acetyl-L-glutamate acid-5-phosphate. (I) is derived from a hyperthermophilic archaebacterium, preferably Sulfolobus tokodaii (JCM10545).

USE - (I) is useful for producing N-acetyl-L-glutamate-5-phosphate from N-acetyl-L-glutamate in the presence of ***ATP*** by an enzymatic reaction, which involves performing the enzymatic reaction using (I), at 85degreesC and at pH of 6.5-8. The enzymatic reaction is arrested by using at least one chelating agent such as EDTA and a bivalent metal ion such as ***Mn*** (2+), Zn(2+) or Cu(2+), after performing a fixed-time enzymatic reaction. (III) is useful for producing (I), which involves culturing (III) and recovering (I) expressed during the culture (claimed).

ADVANTAGE - (I) enables efficient production of N-acetyl-L-glutamate-

5-phosphate even at very high ***temperature*** (85degreesC). (I) provides high reaction efficiency.

EXAMPLE - Chromosomal ***DNA*** was extracted from Sulfolobus tokodaii (JCM10545), processed by proteinase K solution, precipitated using ethanol and the precipitate was dissolved in 5 ml of TE solution. Then, the concentration of the extracted ***DNA*** was determined by measuring light absorbency at 260 nm. ***DNA*** containing restriction enzyme NdeI, BamHI and NotI site adjacent to the translated region of the ***gene*** encoding protein having ***heat*** ***resistant*** acetylglutamate kinase function was constructed by PCR using primers 5'-ATATCATATGATCGTAATCAAAGCTGGAGGAAGATGAATA-3' (forward primer) and 5'-ATATGGATCCGCGGCCGCTTATTACATGATCACCGTTCCCCT-3' (reverse primer). The amplified fragment was obtained and deoxyadenosine was added to the 3'-terminal using Ex Taq. The constructed ***DNA*** was ligated to pGEM-T easy vector. The ligated ***DNA*** was introduced in Escherichia coli DH5 alpha strain. The transformed ***organisms*** were cultured. The plasmid was purified and the presence of the insert was confirmed by agarose gel electrophoresis. The structural ***gene*** of ***heat*** ***resistant*** acetylglutamate kinase was purified. PET-11a was digested using NdeI and BamHI and purified. The purified fragment and the structural ***gene*** fragment were ligated using T4 ***ligase*** . The ligated ***DNA*** was introduced in E.coli DH5 alpha strain. The transformed ***organisms*** were cultured. The ***gene*** was expressed and the protein was purified and the function and the ***sequence*** were analyzed. The result showed that the protein had a fully defined ***sequence*** of 261 amino acids as given in the specification, had a molecular weight of 28.3 kD. The activity of the purified protein was measured using N-acetyl-L-glutamate, and the enzyme efficiently catalyzed transfer of phosphate group from ***ATP*** to N-acetyl-L-glutamate for producing N-acetyl-L-glutamate-5-phosphate. The optimum ***temperature*** and pH for the activity of acetylglutamate kinase was 85degreesC and pH 6.42, respectively. (12 pages)

L10 ANSWER 10 OF 30 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2004-22353 BIOTECHDS
TITLE: Novel heat-resistant DNA ligase derived from Aeropyrum pernix, having stable activity during high temperature experimental conditions, useful in ligase chain reaction; recombinant enzyme production via plasmid expression in host cell for use in ligase chain reaction
PATENT ASSIGNEE: DOKURITSU GYOSEI HOJIN SANGYO GIJUTSU SO
PATENT INFO: JP 2004248636 9 Sep 2004
APPLICATION INFO: JP 2003-45224 24 Feb 2003
PRIORITY INFO: JP 2003-45224 24 Feb 2003; JP 2003-45224 24 Feb 2003
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
OTHER SOURCE: WPI: 2004-638539 [62]
AN 2004-22353 BIOTECHDS
AB DERWENT ABSTRACT:

NOVELTY - ***Heat*** - ***resistant*** ***DNA*** ***ligase*** (I) having a ***sequence*** of 619 amino acids (S1) fully defined in specification or a ***sequence*** of (S1) with one or more amino acid addition, deletion or substitution, where the activity of ***ligase*** not reduced after ***heat*** -processing for one hour at 100 degrees Centigrade, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for: (1) a ***polynucleotide*** (II) encoding (I), having a ***sequence*** of 1860 nucleotides (S2) fully defined in specification or a ***sequence*** capable of hybridizing to (S2); (2) a vector (III) containing (II); (3) a transformed ***organism*** (IV) containing (III); and (4) extracting ***heat*** - ***resistant*** ***DNA*** ***ligase*** from a transformed ***organism*** , involves culturing (IV) and recovering ***ligase*** from the culture.

BIOTECHNOLOGY - Preferred ***DNA*** ***Ligase*** : (I) has an optimum ***temperature*** of 70 degrees Centigrade or more. (I) utilizes ***ATP*** or ***ADP*** , Mg2+, Mn2+, Ca2+ or Co2+, as a ***co*** -factor. (I) is derived from Aeropyrum pernix.

USE - (I) is useful in ***ligase*** chain reactions (LCR).

ADVANTAGE - (I) is ***heat*** - ***resistant*** and the

activity of (I) does not reduce when used in high ***temperature*** experimental conditions. (I) is stable for long period of time. (I) avoids frequent cooling reactions in LCR required for preventing deactivation of the enzyme, as the enzyme is stable in high ***temperature*** experimental conditions.

EXAMPLE - Chromosomal ***DNA*** was extracted from Aeropyrum pernix K-1 strain. The extracted ***DNA*** was amplified using a primer having the ***sequence*** 5'-GGCTGTCTGGTTTTGGCTTCT-3'. The amplified product was purified and inserted into a vector pET-3d and the resulting vector was designated as pET-8c. The vector was transformed into Escherichia coli JM109 strain. The transformed E.coli containing the ***DNA*** ***ligase*** ***gene*** was inoculated into the NZCYM culture medium. The microbial cells were collected from the culture and centrifuged. The enzyme fraction (molecular weight 69 kDa) was isolated from the supernatant liquid by gel filtration chromatography. The obtained enzyme had a ***sequence*** of 619 amino acids fully defined in specification. The ***heat*** - ***resistant*** property of ***DNA*** - ***ligase*** was tested by incubating the enzyme at 100 degrees Centigrade for one hour and the activity of ***DNA*** ***ligase*** enzyme was found to be 97%. (19 pages)

L10 ANSWER 11 OF 30 USPATFULL on STN
ACCESSION NUMBER: 2003:318632 USPATFULL
TITLE: Novel human transferase family members and uses thereof
INVENTOR(S): Meyers, Rachel E., Newton, MA, UNITED STATES
Williamson, Mark, Saugus, MA, UNITED STATES
Leiby, Kevin R., Natick, MA, UNITED STATES
Kapeller-Libermann, Rosana, Chestnut Hill, MA, UNITED STATES
Olandt, Peter J., Newton, MA, UNITED STATES
MacBeth, Kyle J., Boston, MA, UNITED STATES
Rudolph-Owen, Laura A., Jamaica Plain, MA, UNITED STATES
Tsai, Fong-Ying, Newton, MA, UNITED STATES
Hunter, John J., Somerville, MA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003224376	A1	20031204
APPLICATION INFO.:	US 2002-184648	A1	20020627 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2001-815028, filed on 22 Mar 2001, PENDING Continuation-in-part of Ser. No. US 2001-801220, filed on 7 Mar 2001, PENDING Continuation-in-part of Ser. No. US 2001-816714, filed on 23 Mar 2001, ABANDONED Continuation-in-part of Ser. No. US 2001-844948, filed on 27 Apr 2001, PENDING Continuation-in-part of Ser. No. US 2001-861164, filed on 18 May 2001, ABANDONED Continuation-in-part of Ser. No. US 2001-883060, filed on 15 Jun 2001, PENDING Continuation-in-part of Ser. No. US 2001-962678, filed on 25 Sep 2001, PENDING Continuation-in-part of Ser. No. US 2001-973457, filed on 9 Oct 2001, PENDING Continuation-in-part of Ser. No. US 2002-72285, filed on 8 Feb 2002, PENDING Continuation-in-part of Ser. No. US 2001-817910, filed on 26 Mar 2001, PENDING Continuation-in-part of Ser. No. US 2001-842528, filed on 25 Apr 2001, ABANDONED Continuation-in-part of Ser. No. US 2001-882836, filed on 15 Jun 2001, PENDING Continuation-in-part of Ser. No. US 2001-882872, filed on 15 Jun 2001, ABANDONED

	NUMBER	DATE
PRIORITY INFORMATION:	WO 2001-US9358	20010322
	WO 2001-US7269	20010307
	WO 2001-US9468	20010323
	WO 2001-US13805	20010427
	WO 2001-US16292	20010518
	WO 2001-US19138	20010615
	WO 2001-US29963	20010925

WO 2002-US3736 20020208
WO 2001-US9633 20010326
WO 2001-US40607 20010425
WO 2001-US19543 20010615
WO 2001-US19153 20010615
US 2000-191964P 20000324 (60)
US 2000-187456P 20000307 (60)
US 2000-191865P 20000324 (60)
US 2000-200604P 20000428 (60)
US 2000-205408P 20000519 (60)
US 2000-212079P 20000615 (60)
US 2000-235044P 20000925 (60)
US 2000-238849P 20001006 (60)
US 2001-267494P 20010208 (60)
US 2000-192092P 20000324 (60)
US 2000-199500P 20000425 (60)
US 2000-211730P 20000615 (60)
US 2000-212077P 20000615 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Theodore R. Allen, Millennium Pharmaceuticals, Inc., 75 Sidney Street, Cambridge, MA, 02139
NUMBER OF CLAIMS: 19
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 125 Drawing Page(s)
LINE COUNT: 66695
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides isolated nucleic acids molecules, designated 33877, 47179, 26886, 25552, 32132, 32244, 23680, 32624, 47174, 60491, 46743, 27417, 27960, 32252, and 53320 nucleic acid molecules, which encode novel human transferase family members. The invention also provides antisense nucleic acid molecules, recombinant expression vectors containing 33877, 47179, 26886, 25552, 32132, 32244, 23680, 32624, 47174, 60491, 46743, 27417, 27960, 32252, or 53320 nucleic acid molecules, host cells into which the expression vectors have been introduced, and nonhuman transgenic animals in which a 33877, 47179, 26886, 25552, 32132, 32244, 23680, 32624, 47174, 60491, 46743, 27417, 27960, 32252, or 53320 gene has been introduced or disrupted. The invention still further provides isolated 33877, 47179, 26886, 25552, 32132, 32244, 23680, 32624, 47174, 60491, 46743, 27417, 27960, 32252, or 53320 proteins, fusion proteins, antigenic peptides and anti-33877, 47179, 26886, 25552, 32132, 32244, 23680, 32624, 47174, 60491, 46743, 27417, 27960, 32252, or 53320 antibodies. Diagnostic methods utilizing compositions of the invention are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 12 OF 30 USPATFULL on STN
ACCESSION NUMBER: 2003:237907 USPATFULL
TITLE: Compositions and methods for the therapy and diagnosis of colon cancer
INVENTOR(S): King, Gordon E., Shoreline, WA, UNITED STATES
Meagher, Madeleine Joy, Seattle, WA, UNITED STATES
Xu, Jiangchun, Bellevue, WA, UNITED STATES
Secrist, Heather, Seattle, WA, UNITED STATES
Jiang, Yuqiu, Kent, WA, UNITED STATES
PATENT ASSIGNEE(S): Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003166064	A1	20030904
APPLICATION INFO.:	US 2002-99926	A1	20020314 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2001-33528, filed on 26 Dec 2001, PENDING Continuation-in-part of Ser. No. US 2001-920300, filed on 31 Jul 2001, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-302051P	20010629 (60)

US 2001-279763P 20010328 (60)
US 2000-223283P 20000803 (60)
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092
NUMBER OF CLAIMS: 17
EXEMPLARY CLAIM: 1
LINE COUNT: 8531
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions and methods for the therapy and diagnosis of cancer, particularly colon cancer, are disclosed. Illustrative compositions comprise one or more colon tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly colon cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 13 OF 30 USPATFULL on STN
ACCESSION NUMBER: 2003:106914 USPATFULL
TITLE: Flea head, nerve cord, hindgut and malpighian tubule nucleic acid molecules, proteins and uses thereof
INVENTOR(S): Brandt, Kevin S., Windsor, CO, UNITED STATES
Gaines, Patrick J., Fort Collins, CO, UNITED STATES
Stinchcomb, Dan T., Fort Collins, CO, UNITED STATES
Wisnewski, Nancy, Fort Collins, CO, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003073827	A1	20030417
APPLICATION INFO.:	US 2001-991936	A1	20011121 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 2000-543668, filed on 7 Apr 2000, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-128704P	19990409 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: HESKA CORPORATION, INTELLECTUAL PROPERTY DEPT., 1613 PROSPECT PARKWAY, FORT COLLINS, CO, 80525
NUMBER OF CLAIMS: 26
EXEMPLARY CLAIM: 1
LINE COUNT: 7791
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to flea head, nerve cord, hindgut and Malpighian tubule proteins; to flea head, nerve cord, hindgut and Malpighian tubule nucleic acid molecules, including those that encode such flea head, nerve cord, hindgut and Malpighian tubule proteins; to antibodies raised against such flea head, nerve cord, hindgut and Malpighian tubule proteins; and to compounds that inhibit flea head, nerve cord, hindgut and Malpighian tubule protein activity. The present invention also includes methods to obtain such proteins, nucleic acid molecules, antibodies, and inhibitory compounds. Also included in the present invention are therapeutic compositions comprising proteins, nucleic acid molecules, or protective compounds derived from proteins of the present invention as well as the use of such therapeutic compositions to protect animals from flea infestation. Also included in the present invention is the use of flea head, nerve cord, hindgut and Malpighian tubule proteins to derive inhibitory compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 14 OF 30 USPATFULL on STN
ACCESSION NUMBER: 2003:106233 USPATFULL
TITLE: Compositions and methods for the therapy and diagnosis of pancreatic cancer

INVENTOR(S): Benson, Darin R., Seattle, WA, UNITED STATES
Kalos, Michael D., Seattle, WA, UNITED STATES
Lodes, Michael J., Seattle, WA, UNITED STATES
Persing, David H., Redmond, WA, UNITED STATES
Hepler, William T., Seattle, WA, UNITED STATES
Jiang, Yuqiu, Kent, WA, UNITED STATES
PATENT ASSIGNEE(S): Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003073144	A1	20030417
APPLICATION INFO.:	US 2002-60036	A1	20020130 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-333626P	20011127 (60)
	US 2001-305484P	20010712 (60)
	US 2001-265305P	20010130 (60)
	US 2001-267568P	20010209 (60)
	US 2001-313999P	20010820 (60)
	US 2001-291631P	20010516 (60)
	US 2001-287112P	20010428 (60)
	US 2001-278651P	20010321 (60)
	US 2001-265682P	20010131 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092
NUMBER OF CLAIMS: 17
EXEMPLARY CLAIM: 1
LINE COUNT: 14253
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions and methods for the therapy and diagnosis of cancer, particularly pancreatic cancer, are disclosed. Illustrative compositions comprise one or more pancreatic tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly pancreatic cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 15 OF 30 USPATFULL on STN
ACCESSION NUMBER: 2003:95966 USPATFULL
TITLE: Polynucleotides, materials incorporating them, and methods for using them
INVENTOR(S): Glenn, Matthew, Auckland, NEW ZEALAND
Havukkala, Ilkka J., Auckland, NEW ZEALAND
Bloksberg, Leonard N., Auckland, NEW ZEALAND
Lubbers, Mark W., Palmerston North, NEW ZEALAND
Dekker, James, Palmerston North, NEW ZEALAND
Christensson, Anna C., Lund, SWEDEN
Holland, Ross, Palmerson North, NEW ZEALAND
O'Toole, Paul W., Palmerston North, NEW ZEALAND
Reid, Julian R., Palmerston North, NEW ZEALAND
Coolbear, Timothy, Palmerston North, NEW ZEALAND
PATENT ASSIGNEE(S): Genesis Research & Development Corp. Ltd, Parnell, NEW ZEALAND (non-U.S. corporation)
Via Lachia Bioscience (NZ) Ltd., Auckland, NEW ZEALAND (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6544772	B1	20030408
APPLICATION INFO.:	US 2000-634238		20000808 (9)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Brusca, John S.

LEGAL REPRESENTATIVE: Sleath, Janet, Speckman, Ann W.
NUMBER OF CLAIMS: 9
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s)
LINE COUNT: 2015
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Novel polynucleotides isolated from Lactobacillus rhamnosus, as well as probes and primers, genetic constructs comprising the polynucleotides, biological materials, including plants, microorganisms and multicellular organisms incorporating the polynucleotides, polypeptides expressed by the polynucleotides, and methods for using the polynucleotides and polypeptides are disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 16 OF 30 USPATFULL on STN
ACCESSION NUMBER: 2003:40533 USPATFULL
TITLE: Methods for the inhibition of epstein-barr virus transmission employing anti-viral peptides capable of abrogating viral fusion and transmission
INVENTOR(S): Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
PATENT ASSIGNEE(S): Trimeris, Inc., Durham, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6518013	B1	20030211
APPLICATION INFO.:	US 1995-485546		19950607 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994, now patented, Pat. No. US 6017536 Continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 Continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Scheiner, Laurie
ASSISTANT EXAMINER: Parkin, Jeffrey S.
LEGAL REPRESENTATIVE: Pennie & Edmonds LLP, Nelson, M. Bud
NUMBER OF CLAIMS: 22
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 84 Drawing Figure(s); 83 Drawing Page(s)
LINE COUNT: 24700
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Fusion of the viral envelope, or infected cell membranes with uninfected cell membranes, is an essential step in the viral life cycle. Recent studies involving the human immunodeficiency virus type 1(HIV-1) demonstrated that synthetic peptides (designated DP-107 and DP-178) derived from potential helical regions of the transmembrane (TM) protein, gp41, were potent inhibitors of viral fusion and infection. A computerized antiviral searching technology (C.A.S.T.) that detects related structural motifs (e.g., ALLMOTI 5, 107.times.178.times.4, and PLZIP) in other viral proteins was employed to identify similar regions in the Epstein-Barr virus (EBV). Several conserved heptad repeat domains that are predicted to form coiled-coil structures with antiviral activity were identified in the EBV genome. Synthetic peptides of 16 to 39 amino acids derived from these regions were prepared and their antiviral activities assessed in a suitable in vitro screening assay. These peptides proved to be potent inhibitors of EBV fusion. Based upon their structural and functional equivalence to the known HIV-1 inhibitors DP-107 and DP-178, these peptides should provide a novel approach to the development of targeted therapies for the treatment of EBV infections.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 17 OF 30 USPATFULL on STN
ACCESSION NUMBER: 2002:272801 USPATFULL

TITLE: Compositions and methods for the therapy and diagnosis of colon cancer
INVENTOR(S): Stolk, John A., Bothell, WA, UNITED STATES
Xu, Jiangchun, Bellevue, WA, UNITED STATES
Chenault, Ruth A., Seattle, WA, UNITED STATES
Meagher, Madeleine Joy, Seattle, WA, UNITED STATES
PATENT ASSIGNEE(S): Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002150922	A1	20021017
APPLICATION INFO.:	US 2001-998598	A1	20011116 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-304037P	20010710 (60)
	US 2001-279670P	20010328 (60)
	US 2001-267011P	20010206 (60)
	US 2000-252222P	20001120 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092
NUMBER OF CLAIMS: 17
EXEMPLARY CLAIM: 1
LINE COUNT: 9233
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions and methods for the therapy and diagnosis of cancer, particularly colon cancer, are disclosed. Illustrative compositions comprise one or more colon tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly colon cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 18 OF 30 USPATFULL on STN
ACCESSION NUMBER: 2002:243051 USPATFULL
TITLE: Compositions and methods for the therapy and diagnosis of ovarian cancer
INVENTOR(S): Algate, Paul A., Issaquah, WA, UNITED STATES
Jones, Robert, Seattle, WA, UNITED STATES
Harlocker, Susan L., Seattle, WA, UNITED STATES
PATENT ASSIGNEE(S): Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002132237	A1	20020919
APPLICATION INFO.:	US 2001-867701	A1	20010529 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-207484P	20000526 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092
NUMBER OF CLAIMS: 11
EXEMPLARY CLAIM: 1
LINE COUNT: 25718
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions and methods for the therapy and diagnosis of cancer, particularly ovarian cancer, are disclosed. Illustrative compositions comprise one or more ovarian tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are

specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly ovarian cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 19 OF 30 USPATFULL on STN
ACCESSION NUMBER: 2002:221971 USPATFULL
TITLE: ENTEROCOCCUS FAECALIS POLYNUCLEOTIDES AND POLYPEPTIDES
INVENTOR(S): KUNSCH, CHARLES A., ATLANTA, GA, UNITED STATES
DILLON, PATRICK J., CARLSBAD, CA, UNITED STATES
BARASH, STEVEN, ROCKVILLE, MD, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002120116	A1	20020829
APPLICATION INFO.:	US 1998-70927	A1	19980504 (9)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850
NUMBER OF CLAIMS: 18
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 2 Drawing Page(s)
LINE COUNT: 13315
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides polynucleotide sequences of the genome of Enterococcus faecalis, polypeptide sequences encoded by the polynucleotide sequences, corresponding polynucleotides and polypeptides, vectors and hosts comprising the polynucleotides, and assays and other uses thereof. The present invention further provides polynucleotide and polypeptide sequence information stored on computer readable media, and computer-based systems and methods which facilitate its use.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 20 OF 30 USPATFULL on STN
ACCESSION NUMBER: 2002:55159 USPATFULL
TITLE: STREPTOCOCCUS PNEUMONIAE POLYNUCLEOTIDES AND SEQUENCES
INVENTOR(S): KUNSCH, CHARLES A., GAITHERSBURG, MD, UNITED STATES
CHOI, GIL H., ROCKVILLE, MD, UNITED STATES
DILLON, PATRICK J., CARLSBAD, CA, UNITED STATES
ROSEN, CRAIG A., LAYTONSVILLE, MD, UNITED STATES
BARASH, STEVEN C., ROCKVILLE, MD, UNITED STATES
FANNON, MICHAEL R., SILVER SPRING, MD, UNITED STATES
DOUGHERTY, BRIAN A., MT. AIRY, MD, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002032323	A1	20020314
	US 6420135	B2	20020716
APPLICATION INFO.:	US 1997-961527	A1	19971030 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-29960P	19961031 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850
NUMBER OF CLAIMS: 20
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 2 Drawing Page(s)
LINE COUNT: 7752
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides polynucleotide sequences of the genome of Streptococcus pneumoniae, polypeptide sequences encoded by the polynucleotide sequences, corresponding polynucleotides and polypeptides, vectors and hosts comprising the polynucleotides, and

assays and other uses thereof. The present invention further provides polynucleotide and polypeptide sequence information stored on computer readable media, and computer-based systems and methods which facilitate its use.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 21 OF 30 USPATFULL on STN
ACCESSION NUMBER: 2002:297296 USPATFULL
TITLE: Methods for inhibition of membrane fusion-associated events, including respiratory syncytial virus transmission
INVENTOR(S): Bolognesi, Dani Paul, Durham, NC, United States
Matthews, Thomas James, Durham, NC, United States
Wild, Carl T., Durham, NC, United States
Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
Langlois, Alphonse J., Durham, NC, United States
PATENT ASSIGNEE(S): Trimeris, Inc., Durham, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6479055	B1	20021112
APPLICATION INFO.:	US 1995-470896		19950606 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994, now patented, Pat. No. US 6017536 Continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 Continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Stucker, Jeffrey
LEGAL REPRESENTATIVE: Pennie & Edmonds LLP
NUMBER OF CLAIMS: 44
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 84 Drawing Figure(s); 83 Drawing Page(s)
LINE COUNT: 26553
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to peptides which exhibit potent anti-viral activity. In particular, the invention relates to methods of using such peptides as inhibitory of respiratory syncytial virus ("RSV") transmission to uninfected cells. The peptides used in the methods of the invention are homologs of the DP-178 and DP-107 peptides, peptides corresponding to amino acid residues 638 to 673, and to amino acid residues 558 to 595, respectively, of the HIV-1.sub.LAI transmembrane protein (TM) gp41.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 22 OF 30 USPATFULL on STN
ACCESSION NUMBER: 2001:188946 USPATFULL
TITLE: Methods for using functional site descriptors and predicting protein function
INVENTOR(S): Skolnick, Jeffrey, San Diego, CA, United States
Fetrow, Jacquelyn S., San Diego, CA, United States

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001034580	A1	20011025
	US 6631332	B2	20031007
APPLICATION INFO.:	US 2001-839821	A1	20010420 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 1999-322067, filed on 27 May 1999, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-99300P	19980825 (60)

US 1999-120311P 19990216 (60)
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: GREGORY P. EINHORN, Fish & Richardson P.C., 4350 La Jolla Village Drive, Suite 500, San Diego, CA, 92122
NUMBER OF CLAIMS: 52
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 13 Drawing Page(s)
LINE COUNT: 4841
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention concerns methods and systems for predicting the biological function(s) of proteins. The invention is based on the development of functional site descriptors for discrete protein biological functions. Functional site descriptors are geometric representations of protein functional sites in three-dimensional space, and can also include additional parameters, for example, conformational information. Following their development, one or more functional site descriptors (for one or more different biological functions) are used to probe protein structures to determine if such structures contain the functional sites described by the corresponding functional site descriptors. If so, the protein(s) containing the functional site(s) are predicted to have the corresponding biological function(s). In preferred embodiments, a library of functional site descriptors is used to probe inexact protein structures derived by computational methods from amino acid sequence information to predict the biological function(s) of such sequences and of the gene(s) encoding the same.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 23 OF 30 USPATFULL on STN
ACCESSION NUMBER: 2001:67794 USPATFULL
TITLE: Human respiratory syncytial virus peptides with antifusogenic and antiviral activities
INVENTOR(S): Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
PATENT ASSIGNEE(S): Trimeris, Inc., Durham, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6228983	B1	20010508
APPLICATION INFO.:	US 1995-485264		19950607 (8)

RELATED APPLN. INFO.: Division of Ser. No. US 1995-470896, filed on 6 Jun 1995 Continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994 Continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 Continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Scheiner, Laurie
ASSISTANT EXAMINER: Parkin, Jeffrey S.
LEGAL REPRESENTATIVE: Pennie & Edmonds LLP
NUMBER OF CLAIMS: 62
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 84 Drawing Figure(s); 83 Drawing Page(s)
LINE COUNT: 32166
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to peptides which exhibit antifusogenic and antiviral activities. The peptides of the invention consist of a 16 to 39 amino acid region of a human respiratory syncytial virus protein. These regions were identified through computer algorithms capable of recognizing the ALLMOTI5, 107x178x4, or PLZIP amino acid motifs. These motifs are associated with the antifusogenic and antiviral activities of the claimed peptides.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 24 OF 30 USPATFULL on STN

ACCESSION NUMBER: 2000:95093 USPATFULL
TITLE: Isolated peptides derived from the Epstein-Barr virus containing fusion inhibitory domains
INVENTOR(S): Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
PATENT ASSIGNEE(S): Trimeris, Inc., Durham, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6093794		20000725
APPLICATION INFO.:	US 1995-471913		19950607 (8)

RELATED APPLN. INFO.: Division of Ser. No. US 1995-470896, filed on 6 Jun 1995 which is a continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994 which is a continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 which is a continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Scheiner, Laurie
ASSISTANT EXAMINER: Parkin, Jeffrey S.
LEGAL REPRESENTATIVE: Pennie & Edmonds LLP
NUMBER OF CLAIMS: 27
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 52 Drawing Figure(s); 83 Drawing Page(s)
LINE COUNT: 19949
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to peptides which exhibit potent anti-retroviral activity. The peptides of the invention comprise DP178 (SEQ ID:1) peptide corresponding to amino acids 638 to 673 of the HIV-1.sub.LAI gp41 protein, and fragments, analogs and homologs of DP178. The invention further relates to the uses of such peptides as inhibitory of human and non-human retroviral, especially HIV, transmission to uninfected cells.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 25 OF 30 USPATFULL on STN
ACCESSION NUMBER: 2000:67564 USPATFULL
TITLE: Methods for inhibition of membrane fusion-associated events, including influenza virus
INVENTOR(S): Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
PATENT ASSIGNEE(S): Trimeris, Inc., Durham, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6068973		20000530
APPLICATION INFO.:	US 1995-485551		19950607 (8)

RELATED APPLN. INFO.: Division of Ser. No. US 1995-470896, filed on 6 Jun 1995 which is a continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994 which is a continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 which is a continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Park, Hankyel
LEGAL REPRESENTATIVE: Pennie & Edmonds LLP
NUMBER OF CLAIMS: 5
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 52 Drawing Figure(s); 83 Drawing Page(s)
LINE COUNT: 12021
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to peptides which exhibit potent anti-retroviral activity. The peptides of the invention comprise DP178 (SEQ ID:1) peptide corresponding to amino acids 638 to 673 of the HIV-1.sub.LAI gp41 protein, and fragments, analogs and homologs of DP178. The invention further relates to the uses of such peptides as inhibitory of human and non-human retroviral, especially HIV, transmission to uninfected cells.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 26 OF 30 USPATFULL on STN
ACCESSION NUMBER: 2000:57361 USPATFULL
TITLE: Compositions for inhibition of membrane fusion-associated events, including influenza virus transmission
INVENTOR(S): Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
PATENT ASSIGNEE(S): Trimeris, Inc., Durham, NC, United States (U.S. corporation)
Duke University, Durham, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6060065		20000509
APPLICATION INFO.:	US 1995-475668		19950607 (8)

RELATED APPLN. INFO.: Division of Ser. No. US 1995-470896, filed on 6 Jun 1995 which is a continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994 which is a continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 which is a continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Achutamurthy, Ponnathapura
ASSISTANT EXAMINER: Parley, Hankyel T.
LEGAL REPRESENTATIVE: Pennie & Edmonds, LLP
NUMBER OF CLAIMS: 5
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 84 Drawing Figure(s); 83 Drawing Page(s)
LINE COUNT: 19987
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to viral peptides referred to as "DP107- and DP178-like" peptides. Specifically, the invention relates to isolated influenza A DP107- and DP178-like peptides which are identified by sequence search motif algorithms. The peptides of the invention exhibit antiviral activity believed to result from inhibition of viral induced fusogenic events.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 27 OF 30 USPATFULL on STN
ACCESSION NUMBER: 2000:50515 USPATFULL
TITLE: Screening assays for compounds that inhibit membrane fusion-associated events
INVENTOR(S): Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Jr., Stephen Robert, Cary, NC, United States
PATENT ASSIGNEE(S): Trimeris, Inc., Durham, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6054265		20000425
APPLICATION INFO.:	US 1997-919597		19970926 (8)

RELATED APPLN. INFO.: Division of Ser. No. US 1995-470896, filed on 6 Jun 1995 which is a continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994 which is a

continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 which is a continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Stucker, Jeffrey
LEGAL REPRESENTATIVE: Pennie & Edmonds, LLP
NUMBER OF CLAIMS: 1
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 83 Drawing Figure(s); 83 Drawing Page(s)
LINE COUNT: 21307
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to peptides which exhibit potent anti-retroviral activity. The peptides of the invention comprise DP178 (SEQ ID:1) peptide corresponding to amino acids 638 to 673 of the HIV-1.sub.LAI gp41 protein, and fragments, analogs and homologs of DP178. The invention further relates to the uses of such peptides as inhibitory of human and non-human retroviral, especially HIV, transmission to uninfected cells.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 28 OF 30 USPATFULL on STN
ACCESSION NUMBER: 2000:12922 USPATFULL
TITLE: Isolated peptides derived from human immunodeficiency virus types 1 and 2 containing fusion inhibitory domains
INVENTOR(S): Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
PATENT ASSIGNEE(S): Trimeris, Inc., Durham, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6020459		20000201
APPLICATION INFO.:	US 1995-484223		19950607 (8)

RELATED APPLN. INFO.: Division of Ser. No. US 1995-470896, filed on 6 Jun 1995 which is a continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994 which is a continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 which is a continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Scheiner, Laurie
ASSISTANT EXAMINER: Parkin, Jeffrey S.
LEGAL REPRESENTATIVE: Pennie & Edmonds LLP
NUMBER OF CLAIMS: 75
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 52 Drawing Figure(s); 83 Drawing Page(s)
LINE COUNT: 20335
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to peptides which exhibit potent anti-retroviral activity. The peptides of the invention comprise DP178 (SEQ ID:1) peptide corresponding to amino acids 638 to 673 of the HIV-1.sub.LAI gp41 protein, and fragments, analogs and homologs of DP178. The invention further relates to the uses of such peptides as inhibitory of human and non-human retroviral, especially HIV, transmission to uninfected cells.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 29 OF 30 USPATFULL on STN
ACCESSION NUMBER: 2000:9527 USPATFULL
TITLE: Simian immunodeficiency virus peptides with antifusogenic and antiviral activities
INVENTOR(S): Barney, Shawn O'Lin, Cary, NC, United States

Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
Langlois, Alphonse J., Durham, NC, United States
PATENT ASSIGNEE(S): Trimeris, Inc., Durham, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6017536		20000125
APPLICATION INFO.:	US 1994-360107		19941220 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 which is a continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Scheiner, Laurie
ASSISTANT EXAMINER: Parkin, Jeffrey S.
LEGAL REPRESENTATIVE: Pennie & Edmonds LLP
NUMBER OF CLAIMS: 28
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 50 Drawing Figure(s); 62 Drawing Page(s)
LINE COUNT: 20227
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to peptides which exhibit antifusogenic and antiviral activities. The peptides of the invention consist of a 16 to 39 amino acid region of a simian immunodeficiency virus (SIV) protein. These regions were identified through computer algorithms capable of recognizing the ALLMOTI5, 107.times.178.times.4, or PLZIP amino acid motifs. These motifs are associated with the antifusogenic and antiviral activities of the claimed peptides.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 30 OF 30 USPATFULL on STN
ACCESSION NUMBER: 2000:4427 USPATFULL
TITLE: Measles virus peptides with antifusogenic and antiviral activities
INVENTOR(S): Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
PATENT ASSIGNEE(S): Trimeris, Inc., Durham, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6013263		20000111
APPLICATION INFO.:	US 1995-486099		19950607 (8)

RELATED APPLN. INFO.: Division of Ser. No. US 1995-470896, filed on 6 Jun 1995 which is a continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994 Ser. No. Ser. No. US 1994-255208, filed on 7 Jun 1994 And Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Scheiner, Laurie
ASSISTANT EXAMINER: Parkin, Jeffrey S.
LEGAL REPRESENTATIVE: Pennie & Edmonds LLP
NUMBER OF CLAIMS: 38
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 52 Drawing Figure(s); 83 Drawing Page(s)
LINE COUNT: 19827
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to peptides which exhibit potent anti-retroviral activity. The peptides of the invention comprise DP178 (SEQ ID:1) peptide corresponding to amino acids 638 to 673 of the HIV-1.sub.LAI gp41 protein, and fragments, analogs and homologs of DP178. The invention further relates to the uses of such peptides as inhibitory of human and non-human retroviral, especially HIV,

transmission to uninfected cells.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d his

(FILE 'HOME' ENTERED AT 12:26:49 ON 22 DEC 2005)

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE, AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS, CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB, DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 12:27:09 ON 22 DEC 2005
SEA ((HEAT(S)RESISTANT(S)DNA(S)LIGASE#) OR (DNA(S)LIGASE#) OR (

L1 QUE ((HEAT(S) RESISTANT(S) DNA(S) LIGASE#) OR (DNA(S) LIGASE#)

FILE 'USPATFULL, CAPLUS, BIOSIS, MEDLINE, TOXCENTER, SCISEARCH, LIFESCI, ESBIOBASE, EMBASE, BIOTECHNO, BIOTECHDS, WPIDS' ENTERED AT 12:31:45 ON 22 DEC 2005
L2 66094 S L1
L3 32422 S (GENE# OR SEQUENCE# OR POLYNUCLEOTIDE#) (S) L2
L4 6055 S (TEMPERATURE# OR HEAT OR THERM?)(S)L3
L5 1203 S (ATP OR ADP OR COFACTOR#)(S)L4
L6 333 S (MG OR MN OR CA OR CO)(S)L5
L7 4 S PERNIX(S)L6
L8 4 S AEROPYRUM(S)L6
L9 30 S ORGANISM# (S)L6
L10 30 DUP REM L9 (0 DUPLICATES REMOVED)
L11 2 DUP REM L7 (2 DUPLICATES REMOVED)

=> d ibib abs L11 1-2

L11 ANSWER 1 OF 2 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2004-22353 BIOTECHDS
TITLE: Novel heat-resistant DNA ligase derived from Aeropyrum pernix, having stable activity during high temperature experimental conditions, useful in ligase chain reaction; recombinant enzyme production via plasmid expression in host cell for use in ligase chain reaction
PATENT ASSIGNEE: DOKURITSU GYOSEI HOJIN SANGYO GIJUTSU SO
PATENT INFO: JP 2004248636 9 Sep 2004
APPLICATION INFO: JP 2003-45224 24 Feb 2003
PRIORITY INFO: JP 2003-45224 24 Feb 2003; JP 2003-45224 24 Feb 2003
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
OTHER SOURCE: WPI: 2004-638539 [62]
AN 2004-22353 BIOTECHDS
AB DERWENT ABSTRACT:
NOVELTY - ***Heat*** - ***resistant*** ***DNA*** ***ligase*** (I) having a ***sequence*** of 619 amino acids (S1) fully defined in specification or a ***sequence*** of (S1) with one or more amino acid addition, deletion or substitution, where the activity of ***ligase*** not reduced after ***heat*** -processing for one hour at 100 degrees Centigrade, is new.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for: (1) a ***polynucleotide*** (II) encoding (I), having a ***sequence*** of 1860 nucleotides (S2) fully defined in specification or a ***sequence*** capable of hybridizing to (S2); (2) a vector (III) containing (II); (3) a transformed organism (IV) containing (III); and (4) extracting ***heat*** - ***resistant*** ***DNA*** ***ligase*** from a transformed organism, involves culturing (IV) and recovering ***ligase*** from the culture.
BIOTECHNOLOGY - Preferred ***DNA*** ***Ligase*** : (I) has an optimum ***temperature*** of 70 degrees Centigrade or more. (I) utilizes ***ATP*** or ***ADP*** , Mg2+, Mn2+, Ca2+ or Co2+, as a ***co*** -factor. (I) is derived from Aeropyrum ***pernix*** .
USE - (I) is useful in ***ligase*** chain reactions (LCR).
ADVANTAGE - (I) is ***heat*** - ***resistant*** and the

activity of (I) does not reduce when used in high ***temperature*** experimental conditions. (I) is stable for long period of time. (I) avoids frequent cooling reactions in LCR required for preventing deactivation of the enzyme, as the enzyme is stable in high ***temperature*** experimental conditions.

EXAMPLE - Chromosomal ***DNA*** was extracted from Aeropyrum ***pernix*** K-1 strain. The extracted ***DNA*** was amplified using a primer having the ***sequence*** 5'-GGCTGTCTGGTTTTGGCTTCT-3'. The amplified product was purified and inserted into a vector pET-3d and the resulting vector was designated as pET-8c. The vector was transformed into Escherichia coli JM109 strain. The transformed E.coli containing the ***DNA*** ***ligase*** ***gene*** was inoculated into the NZCYM culture medium. The microbial cells were collected from the culture and centrifuged. The enzyme fraction (molecular weight 69 kDa) was isolated from the supernatant liquid by gel filtration chromatography. The obtained enzyme had a ***sequence*** of 619 amino acids fully defined in specification. The ***heat*** - ***resistant*** property of ***DNA*** - ***ligase*** was tested by incubating the enzyme at 100 degrees Centigrade for one hour and the activity of ***DNA*** ***ligase*** enzyme was found to be 97%. (19 pages)

L11 ANSWER 2 OF 2 LIFESCI COPYRIGHT 2005 CSA on STN DUPLICATE 1
ACCESSION NUMBER: 2004:8077 LIFESCI
TITLE: A novel ADP-dependent DNA ligase from Aeropyrum pernix K1
AUTHOR: Jeon, S.-J.; Ishikawa, K.
CORPORATE SOURCE: The Special Division for Human Life Technology, National Institute of Advanced Industrial Science and Technology (AIST Kansai), 1-8-31 Midorigaoka, Ikeda, Osaka 563-8577, Japan
SOURCE: FEBS Letters [FEBS Lett.], (20030828) vol. 550, no. 1-3, pp. 69-73.
ISSN: 0014-5793.
DOCUMENT TYPE: Journal
FILE SEGMENT: N; J
LANGUAGE: English
SUMMARY LANGUAGE: English
AB A ***gene*** encoding a putative ***ATP*** -dependent ***DNA*** ***ligase*** from the aerobic hyperthermophilic archaeon Aeropyrum ***pernix*** K1 was cloned and the biochemical characteristics of the resulting recombinant protein were examined. The ***gene*** (accession no. APE1094) from A. ***pernix*** encoding a 69-kDa protein showed a 39-61% identity with other ***ATP*** -dependent ***DNA*** ***ligases*** from the archaea. Normally ***DNA*** ***ligase*** is activated by NAD super(+) or ***ATP*** . There has been no report about the other activators for ***DNA*** ***ligase*** . The recombinant ***ligase*** was a monomeric protein and catalyzed strand joining on a singly nicked ***DNA*** substrate in the presence of ***ADP*** and a divalent cation (***Mg*** super(2+), ***Mn*** super(2+), ***Ca*** super(2+) and ***Co*** super(2+)) at high ***temperature*** . The optimum ***temperature*** and pH for nick-closing activity were above 70 degree C and 7.5 degree C, respectively. The ***ligase*** remained stable for 60 min of treatment at 100 degree C, and the half-life was about 25 min at 110 degree C. This is the first report of a novel hyperthermostable ***DNA*** ***ligase*** that can utilize ***ADP*** to activate the enzyme.

=> log y